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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,651	09/28/2001	Akitomo Terada	392.1725	1918
21171-7590	01/27/2004			
STAAS & HALSEY LLP			EXAMINER	
SUITE 700			ELVE, MARIA ALEXANDRA	
1201 NEW YORK AVENUE, N.W.			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20005			1725	

DATE MAILED: 01/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	Applicant(s)
09/964,651	TERADA ET AL.
M. Alexandra Elve	1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1) Responsive to communication(s) filed on 05 December 2003.

2a) This action is FINAL.                  2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

4) Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) 1-19 and 22 is/are allowed.

6) Claim(s) 20 is/are rejected.

7) Claim(s) 21 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 28 September 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:  
1.) Certified copies of the priority documents have been received.  
2.) Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) The translation of the foreign language provisional application has been received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.  
4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mombo-Caristan (US Pat. 5,603,853).

Mombo-Caristan discloses the welding of metal sheet products. The sheets are lap welded, as the two sheets are unrolled from coil stock. There are upper and lower support rolls, which support each sheet and are varied to accommodate different thicknesses. The spacing between the rolls is also used for applying pressure to the sheet that helps in urging the sheets in a forward direction. Preferably, the rolls are driven in order to control the motion. The upper roller and lower roller bear against the respective surfaces to maintain the sheets in a desirable position for welding and so forth. In addition the guide rollers may also be used as pressure rollers in order to planish the sheets in the overlap region. (abstract, figures 9a, b, c, col. 14, lines 36-47, col. 15, lines 10-20 & 62-67, col. 16, lines 1-25) Mombo-Caristan does not teach the use of a servomotor.

Mombo-Caristan discloses that the rollers are driven. It is obvious that the substitution of a driving mechanism with a servomotor is obvious substitution of an equivalent structure. In re Kuhle 188 USPQ (CCPA 1975) and In re Ruff 118 USPQ 343 (CCPA 1958).

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mombo-Caristan (US Pat. 5,603,853) and in view of Chun et al. (US Pat. 5,814,185).

Mombo-Caristan discloses the welding of metal sheet products. The sheets are lap welded, as the two sheets are unrolled from coil stock. There are upper and lower support rolls, which support each sheet and are varied to accommodate different thicknesses. The spacing between the rolls is also used for applying pressure to the sheet that helps in urging the sheets in a forward direction. Preferably, the rolls are driven in order to control the motion. The upper roller and lower roller bear against the respective surfaces to maintain the sheets in a desirable position for welding and so forth. In addition the guide rollers may also be used as pressure rollers in order to planish the sheets in the overlap region. (abstract, figures 9a, b, c, col. 14, lines 36-47, col. 15, lines 10-20 & 62-67, col. 16, lines 1-25) Mombo-Caristan does not teach the use of a servomotor.

Chun et al. teaches the welding of plastic sheets using platens and a servo motor mechanism. A drive system comprises a platen positioning means, which includes motors, drives and pulleys. A convention servo control system is used to control the motors to drive the upper and lower platens to a predetermined location. Additionally,

hold down rollers are used to prevent motion (abstract, col. 1, lines 1-9, col. 2, lines 60-65, col. 3, lines 1-20, figure 6). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a servo motor system, as taught by Chun et al., in the Mombo-Caristan system because the substitution of a driving mechanism with a servomotor, is obvious substitution of an equivalent structure.

***Allowable Subject Matter***

Claims 1-19 & 22 are allowed.

Claim 21 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Alexandra Elve whose telephone number is (571) 272-1173. The examiner can normally be reached Monday to Friday from 6:30 AM to 3:00 PM.

January 20, 2004.

